

1. Introduction

This document, Mission Operation Procedures for Release 5A system for ECS, provides Maintenance and Operations (M&O) procedures to configure, maintain and operate Release 5A ECS system.

1.1 Identification

This document meets the milestone specified as Contract Data Requirements List (CDRL) Item 117, DID 611/OP3 under contract NAS5-6000. It reflects the ECS as delivered at Release 5A.

1.2 Scope

The scope of this document is directed to DAAC M&O activities to support Release 5A ECS system. Both procedures and instructions are identified. Operations procedures are defined as the step-by-step commands or on-line procedures needed to perform a function. The Operations Instructions are the off-line procedures or directives for performing administrative, operations, management or operations support activities, e.g., Configuration Management, Problem Management, Performance Reporting, etc.

1.2.1 On-Site Procedures Tailoring Guide

Each DAAC may modify these procedures and instructions to accommodate site-specific M&O requirements. Such documentation should be edition dated in Word format with a master copy forwarded to SEO System Engineering. Specifics on authoring, formatting, importing, exporting and maintenance see Chapter 20, Library Administration.

1.3 Purpose

The purpose of this document is to identify the procedures and instructions to operate and maintain Release 5A systems. In addition, DAAC staff responsibilities are identified. The DAAC M&O staff is comprised of operators, engineers, as well as operations support, administration and management staff personnel.

This document will also be used as a training aid for M&O staff who are located at the sites. The operations procedures and operations instructions were derived from, and are intended to be consistent with, the system functions and capabilities specified in the ECS design specifications and the operations activities described in the ECS Operations Concept Document.

1.4 Status and Schedule

This document is to be delivered at CSR minus two weeks. Updates will be made to reflect subsequent system releases. Changes will be submitted through established configuration management procedures, such as document change notices or published revisions.

1.5 Organization

The contents subsequent to this first section are presented as follows:

- Section 2. **Related Documentation.** Lists documents that drive, support or expand on the material in this manual.
- Section 3 **System Administration.** Identifies the operations procedures and/or operations instructions for system administration activities, such as backup and restore, log maintenance, user account administration, and workstation installation.
- Section 4 **Database Administration.** Identifies the operations procedures and/or operations instructions for database administration activities, such as product installation, disk storage management, login and privileges administration, database validation, backup and recovery, database configuration, tuning and performance monitoring.
- Section 5 **Security Services.** Identifies the operations procedures and/or operations instructions for security services activities, such as user authentication and authorization, data access control, network services monitoring, password protection, file modification monitoring.
- Section 6 **Network Administration.** Identifies the operations procedures and/or operations instructions for network administration activities, such as network and system configuration monitoring, network services monitoring.
- Section 7 **System Monitoring.** Identifies the operations procedures and/or operations instructions for network system monitoring, such as problem monitoring and resolution.
- Section 8 **Problem Management.** Identifies the operations procedures and/or operations instructions for submitting trouble tickets and for processing and resolving trouble ticket submissions.
- Section 9 **Configuration Management.** Identifies the operations procedures and/or operations instructions for configuration management activities, such as CCB support, configuration item identification, configuration change requests (CCRs) submission and processing, configuration status accounting, configuration audits, data management, operational database maintenance, software transfer and installation.

- Section 10 **Metadata Administration.** Identifies the operations procedures and/or operations instructions for metadata administration activities, such as establishing collections, populating the database, specifying Earth Science Data Type (ESDT) services.
- Section 11 **Science Software Integration & Test (SSI&T) Operational Procedures.** Identifies the operations procedures and/or operations instructions to support SSI&T activities.
- Section 12 **Resource Planning.** Identifies the operations procedures and/or operations instructions for resource planning activities for non-routine ground events.
- Section 13 **Production Planning.** Identifies the operations procedures and/or operations instructions for production planning activities for job and resource prioritization and scheduling.
- Section 14 **Production Processing.** Identifies the operations procedures and/or operations instructions to support data processing activities.
- Section 15 **Quality Assurance.** Identifies the operations procedures and/or operations instructions to perform DAAC manual non-science quality assurance activities, such as visualization of science data products and updating quality assurance metadata.
- Section 16 **Ingest.** Identifies the operations procedures and/or operations instructions to support data acquisition.
- Section 17 **Archive.** Identifies the operations procedures and/or operations instructions for archiving activities, such as archive repository maintenance, fault monitoring and notification, temporary data storage.
- Section 18 **Data Distribution.** Identifies the operations procedures and/or operations instructions to support data distribution activities, such as media operations and product shipment.
- Section 19 **User Services.** Identifies the operations procedures and/or operations instructions to support user services activities to address user requests.
- Section 20 **Library Administration.** Identifies the operations procedures and/or operations instructions to support librarian administration activities, such as database administration of the Document Data Server Subsystem, change package preparation and distribution, master document control and maintenance.
- Section 21 **COTS Hardware Maintenance.** Identifies the operations procedures and/or operations instructions for preventive and corrective maintenance activities of COTS hardware for the ECS project.

- Section 22 **Software Maintenance.** Identifies the operations procedures and/or operations instructions to support maintenance activities for both COTS software and science software.
- Section 23 **Property Management.** Identifies the operations procedures and/or operations instructions for the receipt, control, and accountability of ECS property at ECS sites during Release A.
- Section 24 **Installation Planning.** Identifies the operations procedures and/or operations instructions to support installation planning activities for conducting site surveys, ensuring that site preparations/coordination are completed on schedule, facilitating receipt and installation of the hardware.
- Section 25 **COTS Training.** Identifies the operations procedures and/or operations instructions to support COTS training activities, such as training request processing, training coordination, training scheduling, training record maintenance.
- Section 26 **On-line Advertising Service Administration.** Identifies the operations procedures and/or operations instructions for the Earth Science On-line Directory (ESOD) on-line advertising service activities, such as group administration and request processing.
- Section 27 **ILM (Integrated Logistics Maintenance Management).** To be added later
- Appendix A **Miscellany.** Contains additional information related to previous sections.
- **Abbreviations and Acronyms.** Identifies abbreviations and acronyms used throughout this document.